COUPON DISPENSER

BACKGROUND OF THE INVENTION

The present invention relates to devices used to dispense retail promotions, such as product or price coupons, in individual sheets at a point-of-purchase, and more particularly to an improved coupon dispenser device wherein a spring-loaded pusher member formed having a P-shaped head is mounted for linear travel within the chamber of a rigid housing assembly having a rounded dispensing mouth and a plurality of tapered ribs extending longitudinally through the chamber to guide distribution and delivery of a stack of coupons to the dispensing mouth when urged upon by the pusher member.

In the field of retail marketing and store promotions, the use of coupon dispensers is widespread particularly at the point of consumer selection and purchase of the product. Often mounted on retail shelves in proximity to the associated product, these coupon dispensers have traditionally been mechanical or electro-mechanical in their operation and have been designed in a variety of configurations to deliver a supply of stored coupons one at a time to an interested consumer. The coupons are generally stored in a folded stack within box-like housings and spring pressure is often applied to the stack to maintain a certain directional distribution, typically toward an open end in the housing through which the coupons may be individually retrieved. Ideally, the stack of coupons should move smoothly through the housing of the dispenser with the outermost coupon in the stack being exposed through the open end so that one and only one coupon is delivered at a time.

Many prior art coupon dispenser devices have been devised and constructed in an effort to provide a complete and continuous flow of the coupons stored therein and their repetitive delivery one-at-a-time to the consumer. Structure variations in the housing of these prior art devices have been implemented in an attempt to facilitate the storage and flow of the coupon stack under a spring load. Other adaptations, such as the use of specially interfolded coupon sheets, with and without adhesive backings, have also been used with some success to achieve a more consistent distribution and sequential delivery of the coupons. While a wide variety of pre-existing dispenser devices with spring-loaded coupon stacks have been generally satisfactory in their use, they have not proven to be completely reliable in effecting repeatable discharge of a single coupon without clumping many together. Although battery powered coupon dispensing devices having electro-mechanical advancers have been proven capable of delivering individual coupons in sequence, they are generally more expensive and burdensome to mount and can be prone to failure due to their power requirements and mechanical movements.

SUMMARY OF THE INVENTION

Accordingly, it is a general purpose and object of the present invention to provide an improved device for dispensing coupons to consumers at a point of purchase.

A more particular object of the present invention is to provide an improved coupon-dispensing device capable of holding a stack of coupons and delivering each coupon in the stack sequentially and one at a time for consumer use at a point of purchase.

Another object of the present invention is to provide a coupon dispenser that houses a stack of coupons under a spring load specially applied for a more controlled distribution and positive delivery of the coupons throughout the device.

Still another of the present invention is to provide a coupon dispenser that is reliable in its delivery of coupons one at a time and made to resist jamming or clumping of the coupons.

A still further object of the present invention is to provide a reusable coupon dispenser that is sturdy in its construction, easy to assemble and readily mounted to storage shelves.

Briefly, these and other objects of the present invention are accomplished by an improved coupon dispenser comprising a rigid housing assembly that includes a front cover and a mating rear housing section engaged together to provide a storage chamber for a stack of folded coupon sheets. The front cover is provided with a rounded dispensing mouth having a rectangular opening formed therein between upper and lower panel surfaces that extend across the mouth in separate inclined planes. The front cover is further provided with a plurality of internal ribs integrally formed

and extending longitudinally through the chamber on all sides, the ribs along the upper chamber being curved and tapered at the dispensing mouth leading to the opening. A P-shaped pusher member engaged to the rear housing section and mounted on a coil spring is disposed for travel longitudinally through the chamber of the front cover to urge the coupons forwardly toward the opening in the dispensing mouth guided along by the internal ribs. The coupon dispenser may be mounted upon a store shelf or other like surface at a point of consumer purchase.

For a better understanding of these and other aspects of the present invention, reference should be made to the following detailed description taken in conjunction with the accompanying drawings in which like reference numerals and characters designate like parts throughout the figures thereof.

BRIEF DESCRIPTION OF THE DRAWINGS

For a fuller understanding of the nature and object of the present invention, references in the detailed description of the preferred embodiment set forth below shall be made to the accompanying drawings in which:

FIG. 1 is a front perspective view of a coupon dispenser device made in accordance with the present invention;

FIG. 2 is a front elevation view of the coupon dispenser shown in FIG. 1;

FIG. 3 is a sectional view of the present coupon dispenser taken along the line 3-3 in FIG. 2;

FIG. 4 is a plan view of the bottom of the coupon dispenser of FIG. 1;

FIG. 5 is an exploded perspective view of the coupon dispenser shown in FIGS. 1-4;

FIG. 6 is a rear elevational view of the coupon dispenser of FIG. 1; and

FIG. 7 is a side view of the present coupon dispenser with a portion cutaway to present an internal view of the invention in operation.

DETAILED DESCRIPTION OF THE INVENTION

The following is a detailed description of a preferred embodiment of the present invention and the best presently contemplated mode of its production and practice. This description is further made for the purpose of illustrating the general principles of the invention but should not be taken in a limiting sense, the scope of the invention being best determined by reference to the appended claims.

Referring now to the drawings and particularly to FIG. 1, the coupon dispenser of the present invention, generally designated 10, is shown in assembled state and ready to deliver one of a plurality of coupon sheets 20 or other piece of promotional material for retrieval by a consumer at a point-of-purchase location. Described in somewhat greater detail below, the coupon sheets 20 are generally rectangular in form and stacked together within the coupon dispenser 10, each sheet being typically folded in a Z-like configuration having a forward-facing leading flap and a rearward-facing trailing flap with a central panel therebetween. The coupon dispenser 10 features a rigid housing assembly 11 including a front cover section 12 and a rear housing section 14 that are releasably engaged and joined together at respective facing edges to provide a continuous housing body with longitudinal chamber therethrough. The front cover 12 and rear housing 14 are each made of a lightweight and durable material, such as plastic, and are formed, typically by conventional molding, having substantially the same cross-sectional dimensions at their respective facing edges. The exterior of the housing assembly 11 typically presents a rounded rectangular box-like structure, as shown, but can be otherwise formed in a variety of external configurations within the scope of the present invention. Regardless of its

external configuration, a rounded dispensing mouth 13, described in greater detail below, is formed and provided at the front end of the housing assembly 11 to ensure the proper delivery and retrieval of individual coupon sheets 20 stored within the chamber of the housing assembly.

Engagement of the front cover 12 and rear housing section 14 is releasable and effected by means of an interlocking arrangement of their respective top and bottom surfaces. To this effect, the top surface of front cover 12 is provided with a central slot 12a extending forward from the rear facing edge and a pair of slotted openings 12b of rectangular configuration made through the top surface on either side of the central slot near the forwardmost end of the slot. A recess section 12c is further formed in the top surface of the front cover 12 forwardly of the central slot 12a and slotted openings 12b to provide a flattened central region on the top of the housing assembly 11. As better seen in FIG. 3, an additional pair of slotted openings 12g, like those openings 12b on the top of the front cover 12, are formed in the bottom surface of the front cover to cooperate with associated portions of the rear housing section 14, described in greater detail below, in further support of the releasable engagement feature of the housing assembly 11. It should be noted that the central slot 12a through the top surface of the front cover 12 provides an element of needed flexibility for the releasable engagement of the front cover with the rear housing section 14 and further allows for the placement of a promotional card or marquee (not shown) along the top of the housing assembly 11 and resting forwardly upon the recess section 12c.

The rear housing section 14 is formed along its respective top and bottom surfaces with flexible tangs 14a and 14c each made to extend into the open back end of the front cover 12 and engage with the respective pairs of

slotted openings 12b and 12g in the top and bottom surfaces thereof. Upper tang 14a, seen most clearly in FIGS. 3 and 5, projects from the top surface of the rear housing section 14 and is made so as to permit inward deflection, further having a pair of raised detents 14b provided at the end of the tang that are directed outward and positioned so as to engage the slotted openings 12b on the top of front cover 12. Lower tang 14c, also viewed clearly in FIGS. 3 and 5, projects from the bottom side of the rear housing section 14 and like upper tang 14a, is made to permit its inward deflection, having a pair of raised detents 14d spaced apart and outwardly directed at the end of the lower tang so as to engage the slotted openings 12g in the bottom of the front cover 12. Housing assembly 11 is thus joined and held together by the full forward extension of the respective upper and lower tangs 14a and 14c into the back of the front cover 12 and the resulting engagement of their associated detents 14b and 14d with the respective pairs of slotted openings 12b and 12g in the top and bottom of the front cover. Subsequent release of that slotted engagement and the separation of the front cover 12 and rear housing section 14 may then be effected by depressing the upper tang 14a and lower tang 14c and deflecting them inwardly and toward each other to allow both tangs and their respective detents 14b and 14d to be withdrawn rearwardly from the front cover.

Referring now to FIGS. 2 in conjunction with FIG. 1, the dispensing mouth 13 found at the front end of housing assembly 11 is formed having a central opening 17 substantially rectangular in its outline and made to extend substantially across the forward face of front cover 12. An upper panel member 16 integrally formed across the forward face of the front cover 12 is disposed downwardly in a plane substantially perpendicular to the top of the front cover to establish the top edge of the central opening 17. A lower

panel 18, also integrally formed across the forward face of front cover 12 but across the bottom thereof, is disposed inwardly from the upper panel member 16 in a separate plane that is recessed from that of the upper panel and inclined slightly forward, as best seen in FIGS. 3 and 7, to establish the top edge of the central opening 17. On each side of the upper and lower panel members 16 and 18, rounded edge panels 12d are integrally formed on the front cover 12 and made to extend forwardly with an arcuate projection beyond the planar positions of both the upper and lower panel members, with the forwardmost projection of the edge panels being located about the central opening 17 on either side thereof. Formation of these rounded edge panels 12d protruding on either side of central opening 17 serves to confine access to the dispensing mouth 13 from either side and require the consumer to retrieve the respective outermost coupon sheets 20 in a direct fashion through the opening. In conjunction with the upper panel member 16, the edge panels 12d thus work to prevent the removal of coupon sheets 20 from the opening 17 in clumps or groups of multiple sheets.

As seen more clearly in FIG. 4, the recessed position of the lower panel member 18 relative to the upper panel member 16 further provides a dimension of depth to the central opening 17 in the dispensing mouth 13 of the housing assembly 11. The depth provided to the central opening 17 between the respective upper and lower panel members 16 and 18 allows the outermost coupon sheet 20 to project downwardly and outwardly through the opening in a manner, as seen in both FIGS. 3 and 7, that exposes the leading flap of the coupon sheet like a tongue. This tongue effect produced upon the outermost coupon sheet 20 by the internal working structure of the coupon dispenser 10, described in greater detail below, is instrumental in delivering one and only one coupon sheet at a time to the consumer.

Further seen in FIG. 4, the pair of slotted openings 12g on the underside of front cover 12 are positioned rearward of the dispensing mouth 13 about midway toward the rear facing edge of the front cover, one of the openings being on each side of the centerline. The positioning of the slotted openings 12 is coordinated with both the length and width of the lower tang 14c on rear housing section 14 so that the raised detents 14d on the end of the lower tang align with and engage the slotted opening upon full insertion of the lower tang into the front cover. Further provided on the underside of the front cover 12 along the centerline thereof and rearward of the slotted openings 12g, a circular opening 21 is formed through the front cover and made to align with a corresponding opening formed in the lower tang 14c so that a screw or other locking member (not shown) may be inserted through the openings when the housing assembly 11 is joined to lock the front cover to the rear housing section 14. A mounting boss 22 integrally formed and made to extend from the back of the rear housing section 14 is provided to permit mounting of the coupon dispenser 10 at a point-of-purchase location. As viewed in FIG. 6, the mounting boss 22 is typically cylindrical in its extended form and thus adapted for engagement by a mating cylindrical rod or like coupling member (not shown) to secure the coupon dispenser 10 in a proper and substantially horizontal position.

Referring now to FIGS. 3 and 5, the operative components and internal structure of the present coupon dispenser 10 include a pusher member 28 having a substantially P-shaped head 30 mounted within housing assembly 11 for longitudinal travel therethrough. The pusher member 28 is made of a rigid and durable material similar to that of the housing assembly 11 and is formed having a cylindrically-shaped rear body 29 that extends from the back of the P-shaped head 30 in an axial direction. The rear body

29 of the pusher member 28 is adapted to engage a cylindrical core 24 projecting forward from within the rear housing section 14, the cylindrical form of the rear body being sized in its diameter to fit over and along the form of the core. Flexible key members 24a made to project on either side of the core 24 are adapted to engage longitudinal openings on opposite sides of the rear body 29 so as to retain the movable pusher member 28 to the core of rear housing section 14 and help guide longitudinal travel of the pusher member through the housing assembly 11 without rotation. A coil compression spring 26 having a generally cylindrical configuration is formed to fit along its axis within the rear body 29 of the pusher member 28 and further extend into the central core 24 of the rear housing section 14 to abut the inside back wall thereof. The coil spring 26 thus disposed between the pusher member 28 and the rear housing section 14 is contained within the rear body 29 of the pusher member and the central core 24 of the rear housing section to produce a forwardly directed spring force upon the pusher member. The engagement of the rear body 29 of the pusher member with the central core 24 via key members 24a confines the coil spring 26 between the pusher member 28 and the rear housing section 14 and allows those engaged components to be separated and handled together in combination apart from the front cover 12.

The P-shaped head 30 of pusher member 28 is formed having a curved front surface 30a that is asymmetric in its curved configuration, the upper portion of the front surface having a substantially semi-circular profile and the bottom portion having a less pronounced convex profile with a relatively larger radius of curvature. The P-shaped head 30 is disposed at the forward end of the pusher member 28 with its curved front surface 30a directed toward the dispensing mouth 13 of the housing assembly 11 when

mounted internally thereof. Thus disposed, the curved front surface 30a of the P-shaped head 30 is set to immediately impact and press against the stack of coupon sheets 20 loaded within the chamber of the housing assembly 11, particularly within the forward section of front cover 12, and apply to the coupon stack the forwardly directed spring tone of the coil spring 26.

The stack of folded coupon sheets 20 is loaded into the front cover 12 from the open rear end thereof and placed therein so that the central panel of each sheet is vertically oriented within the chamber having the forward-facing leading flap at the top and the rearward-facing trailing flap at the bottom. This orientation of the coupon sheets 20 in the chamber of the front cover 12 allows the leading flap to be pressed forward and deflected outward from the central opening 17 upon the urging of the curved face 30a of the spring-loaded P-shaped head 30. Preferable to the operation of the present coupon dispenser 10, the leading flap of each of the coupon sheets 20 may be made disproportionately longer than the trailing flap to promote a greater forward deflection of the coupon stack by the P-shaped head 30 and produce a more pronounced tongue effect exhibited by the leading flap of the outermost coupon sheet.

The chamber of the housing assembly 11 is ribbed in its construction along the entire assembled length thereof and on all surrounding walls. The inside top wall of the front cover 12 is provided with a series of contoured ribs 12e that extend forward from the open rear end of the front cover initially level with the top wall and then curving downward toward the central opening 17 of the dispensing mouth 13 with a radius of curvature substantially the same as that of the rounded edge panels 12d. Each of the contoured ribs 12e is tapered slightly as it approaches the central opening 17,

particularly as the curved portion of each rib meets the inside surface of the upper panel member 16 above the central opening. These contoured ribs 12e in their described curved and tapered form serve to guide the movement of the coupon sheets 20, funneling the sheets downward toward the central opening 17 when pressed upon and urged forwardly by the P-shaped head 30. Additional bottom ribs 12f and side ribs 12h, each running substantially level to the respective bottom and side walls of the front cover 12, extend along the respective walls of the chamber to supplement the contoured ribs 12e and complete the surrounding ribbed construction of the chamber. This surrounding ribbed construction integrally provided along the chamber of the front cover 12 not only strengthens the structural shell of the front cover but also serves to contain therein and directly support the stack of coupon sheets along the edges of the separate ribs and thereby provide low friction guidance to the stack in its distribution through the housing assembly 11 and into the dispensing mouth 13. Within the rear housing section 14, a plurality of side ribs 14e are further formed along the side walls and made to extend from the back of the rear housing section through the open front end thereof. These side ribs 14e correspond in number to the side ribs 12h in the front cover 12 and are substantially aligned with the side ribs in the front cover when the rear housing section is assembled thereto. Each of the side ribs 14e is made to extend just beyond the open front end of the rear housing section 14 to further provide corresponding projections around the forward perimeter of the housing section that serve to align it with the front cover during assembly. The respective upper and lower tangs 14a and 14c are also ribbed along their inner wall surfaces to align and blend with the corresponding ribs 12e and 12f on the top and bottom surfaces of the front cover 12 when assembled to the rear housing section 14.

Referring now to FIG. 7, the stack of coupon sheets 20 are loaded into the ribbed chamber of the front cover 12 through its open rear end and held in position within the chamber surrounded by and supported along the internal ribs 12e, 12f and 12h. Upon assembling the combined rear housing section 14 and spring-loaded pusher member 28 to the front cover 12, the loaded stack of coupon sheets 20 is urged forward and deflected in a bowed manner under the force of the coil spring 26 that is applied to the rear of the stack by the P-shaped head 30 of the pusher member 28. The bowed deflection of the stack of coupon sheets 20 is the result of the asymmetric curvature of the P-shaped head 30 and the funneling effect provided by the contoured ribs 12e and contributes to the tongue effect produced upon the outermost coupon sheet at the central opening 17. The entire stack of coupon sheets 20 is distributed forwardly through the front cover 12 of the housing assembly 11 by the spring-loaded pusher member 28 and is guided continuously through the surrounding ribbed construction of the chamber, the contoured ribs 12e along the top wall funneling the upper part of the stack toward the central opening 17 and allowing the leading flap of the outermost coupon sheet to project downward and outward from the opening so that it may be easily reached between the rounded edge panels 12d and removed by the consumer from the dispensing mouth 11.

Therefore, it should be apparent that the described invention provides an improved device for dispensing coupons to consumers at a point of purchase. The present invention more particularly provides an improved coupon-dispensing device capable of holding a stack of coupons and delivering each coupon in the stack sequentially and one at a time for consumer use at a point of purchase. The internal structure of the described coupon dispenser, particularly the tapered ribs formed within the chamber of

the housing assembly and the spring-loaded P-shaped pusher traveling therethrough, reduces drag on the coupon stack and produces a funneling effect thereon at the dispensing mouth for a more controlled distribution and positive discharge of the coupons. The external structure of the present coupon dispenser, particularly the rounded side panels extending about the opening at the dispensing mouth, promote the sequential delivery of coupons and resist clumping of the coupons by the consumer. In addition, the described coupon dispenser is sturdy and reusable, easy to assemble and readily mounted to storage shelves.

Obviously, other embodiments and modifications of the present invention will readily come to those of ordinary skill in the art having the benefit of the teachings presented in the foregoing description and drawings. Alternate embodiments of different shapes and sizes, as well as substitution of known materials or those materials which may be developed at a future time to perform the same function as the present described embodiment are therefore considered to be part of the present invention. Accordingly, it is understood that this invention is not limited to the particular embodiment described, but rather is intended to cover modifications within the spirit and scope of the present invention as expressed in the appended claims.